



# University of Texas M.D. Anderson Cancer Center

## The University of Texas M.D. Anderson Cancer Center

"Facing a tough storage issue, OnX and HP helped us design a solid system. Lots of people will advise you, but few have serious life sciences experience like OnX and HP."

--Dan Jackson, Senior UNIX Systems Administrator, University of Texas M.D. Anderson Cancer Center

The University of Texas (UT) Cancer Research Center uncovered a new approach to gene sequence computing using HP DL785s.

### The OnX Solution

#### Objectives

- Increase the speed of computational tools for next generation sequencing
- Improve the ability to manage the massive amounts of required storage and memory for thousands of gigabytes of data

#### Approach

- With OnX, the cancer center learned about the new HP DL785 servers that provide for 32 CPUs. The customer ultimately purchased three HP DL785s. "Lots of people make equipment, but when we have a particular storage or processing problem, then we rely on OnX's solid, 'been there, done that' expertise," said Dan Jackson, senior systems administrator, UT M.D. Anderson Cancer Center
- Through UT M.D. Anderson Cancer Center's data operations group, VMware and 26 virtual machines were used to manage application development and staging

#### Impact

##### IT Improvements

- DL785s provide for 3x to 10x faster computations with an impressive memory footprint and great I/O
- The virtual machines in the datacenter from VMware allow the research center to develop and stage applications without additional racks, servers or floor space

##### Business Improvements

- Saved taxpayers roughly \$500,000 by purchasing three DL785s in place of an \$800,000 super computer
- UT genetic scientists and bioinformaticians now enjoy dedicated machines for each gene sequencing lab, ensuring almost "always on" computing

#### Company Overview

The University of Texas (UT) M.D. Anderson Cancer Center is a premier research cancer center and was recently ranked number one in cancer care by U.S. News and World Report. Its mission is to eliminate cancer in Texas, the nation and the world through outstanding programs that integrate patient care, research and prevention.

## Challenges

In the last three years, UT M.D. Anderson's IT memory and storage needs have increased, particularly in genetic sequencing with next generation sequencing applications. The cluster server infrastructure experienced extra usage and the data sets themselves grew as well. The UT M.D. Anderson's genetic scientists and bioinformaticians needed to access the data simultaneously without experiencing a significant slow down or data latency.

## Solution Snapshot

### Hardware

- 3 HP DL785s G4 (for large memory SMP apps)
- 268 HP DL145s (for clustering)
- 35 HP DL385/DL585s
- 7 HP StorageWorks EVA

### Software

- VMware ESX. RHEL
- HP Storage Essentials SRM Performance Pack Software
- HP StorageWorks Command View EVA Services
- OnX's analysis of next generation data sequencing

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## Who We Are and What We Do

OnX Enterprise Solutions is a global enterprise data center solutions provider with a suite of end-to-end solutions including the industry's leading Federated cloud solution offerings. The company designs, builds and manages complete data center environments comprised of multi-vendor offerings in four core areas - Hardware & Software Solutions, Cloud & Managed Services, Digital & Application Services, and Professional Services. Over the past 28 years, OnX has helped clients achieve exceptional business results that accelerate their growth and value. Headquartered in Toronto, Canada, OnX has a team of more than 500 IT professionals, revenues of more than \$750 million, and clients and offices throughout North America and Europe. OnX is a privately held company and majority owned by Marlin Equity Partners of Los Angeles, CA. For more information, visit: [www.OnX.com](http://www.OnX.com).



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